

AMENDMENTS TO THE CLAIMS

1. (original) A sector antenna apparatus comprising:
a plurality of horn antennas for radiating beams in different directions; and
an antenna changeover switch for switching between the plurality of horn antennas,

wherein at least a first horn antenna of the plurality of horn antennas emits beam radiation in a high-angular-resolution direction of the different directions and has a large aperture providing a narrow beam width, and at least a second horn antenna of the plurality of horn antennas emits beam radiation in a low-angular-resolution direction of the different directions and has a small aperture providing a broad beam width.
2. (currently amended) The [[A]] sector antenna apparatus according to claim 1, wherein the plurality of horn antennas are mounted on a vehicle.
3. (currently amended) The [[A]] sector antenna apparatus according to claim 2, wherein the horn antenna of the plurality of horn antennas having the large aperture emits beam radiation in one of a forward direction and a backward direction of the vehicle.
4. (currently amended) The [[A]] sector antenna apparatus according to claim 2, wherein the horn antenna of the plurality of horn antennas having the small aperture emits beam radiation in one of a right-side direction and a left-side direction of the vehicle.
5. (currently amended) The [[A]] sector antenna apparatus according to claim 1, wherein the antenna changeover switch is a micromachine high-frequency changeover switch.
6. (currently amended) The [[A]] sector antenna apparatus according to claim 1, wherein the plurality of horn antennas are arranged symmetrically.

7. (currently amended) The [[A]] sector antenna apparatus according to claim 1, wherein the plurality of horn antennas are arranged in a casing.

8. (currently amended) The [[A]] sector antenna apparatus according to claim 7, wherein the casing is formed of a conductive metal material.

9. (currently amended) The [[A]] sector antenna apparatus according to claim 1, wherein the plurality of horn antennas are arranged in the same plane.

10. (currently amended) The [[A]] sector antenna apparatus according to claim 1, wherein the changeover switch sequentially switches between the plurality of horn antennas.

11. (currently amended) The [[A]] sector antenna apparatus according to claim 1, wherein the sector antenna apparatus is arranged so as to emit beam radiation from the rear of a vehicle.

12. (currently amended) A sector antenna apparatus ~~according to claim 1,~~
~~further~~ comprising:

a plurality of horn antennas for radiating beams in different directions;

an antenna changeover switch for switching between the plurality of horn antennas;

a voltage-controlled oscillator;

a high-frequency sub-module connected to the voltage-controlled oscillator and the antenna changeover switch; and

a control-voltage terminal connected to the voltage controlled oscillator,

wherein at least a first horn antenna of the plurality of horn antennas emits beam radiation in a high-angular-resolution direction of the different directions and has a large aperture providing a narrow beam width, and at least a second horn antenna of the plurality

of horn antennas emits beam radiation in a low-angular-resolution direction of the different directions and has a small aperture providing a broad beam width.

13. (currently amended) The ~~[[A]]~~ sector antenna apparatus according to claim 12, wherein the high-frequency sub-module includes at least one amplifier and a circulator connected between the voltage-controlled oscillator and the antenna changeover switch.

14. (currently amended) The ~~[[A]]~~ sector antenna apparatus according to claim 13, wherein the high-frequency sub-module further includes a branch coupler connected between the at least one amplifier and the circulator; and a mixer connected with the antenna changeover switch via the circulator and also connected with the branch coupler.

15. (currently amended) A vehicle-mounted transmission and reception apparatus comprising:

a ~~the~~ sector antenna apparatus ~~according to claim 1~~ which includes:

a plurality of horn antennas for radiating beams in different directions;

and

an antenna changeover switch for switching between the plurality of horn antennas,

wherein at least a first horn antenna of the plurality of horn antennas emits beam radiation in a high-angular-resolution direction of the different directions and has a large aperture providing a narrow beam width, and at least a second horn antenna of the plurality of horn antennas emits beam radiation in a low-angular-resolution direction of the different directions and has a small aperture providing a broad beam width.